

What is Claimed is:

1. A network failover transition system for a plurality of ports communicating over a VLAN comprising:

a first switch having a master mode and a standby mode, and configured to provide switching between said ports while in said master mode;

a second switch having a master mode and a standby mode, and configured to provide switching between said ports while in said master mode, wherein said second switch is in said standby mode when said first switch is in said master mode, and said second switch is in said master mode when said first switch is in said standby mode;

wherein said master switch is configured, upon a detection of a network failure, to restart auto-negotiation of said ports, and to transition to said standby mode; and

wherein said second switch is configured, upon said detection of a network failure, to transition to said master mode.

2. The network failover transition system of claim 1, wherein said VLAN is part of an Ethernet Network.

3. The network failover transition system of claim 2, wherein said VLAN utilizes Extreme Networks Standby Router Protocol.

4. The network failover transition system of claim 3, wherein said first and second switches are Layer 2 switches.

5. The network failover transition system of claim 4, wherein said ports are Layer 3 devices.

6. The network failover transition system of claim 1, wherein at least one of said ports utilizes Address Resolution Protocol.

7. The network failover transition system of claim 1, wherein all of said ports utilize Address Resolution Protocol.

5 8. The network failover transition system of claim 1, wherein said network failure is detected using ping track.

9. The network failover transition system of claim 1, wherein said network failure is detected using port track.

10 10. A method of failover transitioning a VLAN with a plurality of ports comprising :
establishing a first switch having a master mode and a standby mode as a master switch;
configuring said master switch to provide switching between said ports;
establishing a second switch having a master mode and a standby mode as a standby
switch;
detecting a communication failure on said VLAN;
15 restarting auto-negotiation of said ports with said master switch;
transitioning said first switch to standby mode, whereby said first switch becomes said
standby switch; and
transitioning said second switch to master mode, whereby said second switch becomes
said master switch.

20 11. The method of failover transitioning a VLAN of claim 10, wherein said VLAN is part of an Ethernet Network.

12. The method of failover transitioning a VLAN of claim 11, wherein said VLAN utilizes Extreme Networks Standby Router Protocol.

13. The method of failover transitioning a VLAN of claim 12, wherein said first and second switches are Layer 2 switches.

14. The method of failover transitioning a VLAN of claim 13, wherein said ports are Layer 3 devices.

15. The method of failover transitioning a VLAN of claim 10, wherein at least one of said ports utilizes Address Resolution Protocol.

16. The method of failover transitioning a VLAN of claim 10, wherein all of said ports utilize Address Resolution Protocol.

17. The method of failover transitioning a VLAN of claim 10, wherein said detecting step comprises using ping track.

18. The method of failover transitioning a VLAN of claim 10, wherein said detecting step comprises using port track.

ABSTRACT

A failover transition system for a VLAN is disclosed in which a master switch and a standby switch are designated, as in the case of ESRP. When a network failure is detected, the master switch “bounces” or restarts auto-negotiation of a set of physical ports on the VLAN. In this way, ports are forced to re-ARP to update their forwarding database information immediately rather than wait until expiration of an ARP max age timer, resulting in a decreased failover transition time.